abcam

Product datasheet

Anti-NRG1 antibody ab53104

13 References 3 图像

概述

产品名称	Anti-NRG1抗体
描述	兔多克隆抗体to NRG1
宿主	Rabbit
特异性	ab53104 detects endogenous levels of isoform 10 of the NRG1 protein.
经测试应用	**适用于:** ICC/IF, WB, IHC-P
种属反应性	**与反应:** Human
免疫原	A synthetic peptide derived from human NRG1.
常规说明	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
存储溶液	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: 50% Glycerol, 0.87% Sodium chloride, PBS Without Mg+2 and Ca+2
纯度	Immunogen affinity purified
纯化说明	ab53104 was affinity purified from rabbit antiserum by affinity chromatography using epitope-specific immunogen.
克隆	多克隆
同种型	IgG

应用

The Abpromise guarantee **Abpromise™承诺保证使用ab53104于以下的经测试应用**

"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
ICC/IF		Use a concentration of 5 µg/ml.
WB		1/300 - 1/1000. Detects a band of approximately 105 kDa.
IHC-P		Use at an assay dependent concentration.

靶标

功能

Direct ligand for ERBB3 and ERBB4 tyrosine kinase receptors. Concomitantly recruits ERBB1 and ERBB2 coreceptors, resulting in ligand-stimulated tyrosine phosphorylation and activation of the ERBB receptors. The multiple isoforms perform diverse functions such as inducing growth and differentiation of epithelial, glial, neuronal, and skeletal muscle cells; inducing expression of acetylcholine receptor in synaptic vesicles during the formation of the neuromuscular junction; stimulating lobuloalveolar budding and milk production in the mammary gland and inducing differentiation of mammary tumor cells; stimulating Schwann cell proliferation; implication in the development of the myocardium such as trabeculation of the developing heart. Isoform 10 may play a role in motor and sensory neuron development.

组织特异性

Type I isoforms are the predominant forms expressed in the endocardium. Isoform alpha is expressed in breast, ovary, testis, prostate, heart, skeletal muscle, lung, placenta liver, kidney, salivary gland, small intestine and brain, but not in uterus, stomach, pancreas, and spleen. Isoform 3 is the predominant form in mesenchymal cells and in non-neuronal organs, whereas isoform 6 is the major neuronal form. Isoform 8 is expressed in spinal cord and brain. Isoform 9 is the major form in skeletal muscle cells; in the nervous system it is expressed in spinal cord and brain. Also detected in adult heart, placenta, lung, liver, kidney, and pancreas. Isoform 10 is expressed in nervous system: spinal cord motor neurons, dorsal root ganglion neurons, and brain. Predominant isoform expressed in sensory and motor neurons. Not detected in adult heart, placenta, lung, liver, skeletal muscle, kidney, and pancreas. Not expressed in fetal lung, liver and kidney. Type IV isoforms are brain-specific.

疾病相关

Note=A chromosomal aberration involving NRG1 produces gamma-heregulin. Translocation t(8;11) with ODZ4. The translocation fuses the 5'-end of ODZ4 to NRG1 (isoform 8). The product of this translocation was first thought to be an alternatively spliced isoform. Gamma-heregulin is a soluble activating ligand for the ERBB2-ERBB3 receptor complex and acts as an autocrine growth factor in a specific breast cancer cell line (MDA-MB-175). Not detected in breast carcinoma samples, including ductal, lobular, medullary, and mucinous histological types, neither in other breast cancer cell lines.

序列相似性

Belongs to the neuregulin family.
Contains 1 EGF-like domain.
Contains 1 Ig-like C2-type (immunoglobulin-like) domain.

发展阶段

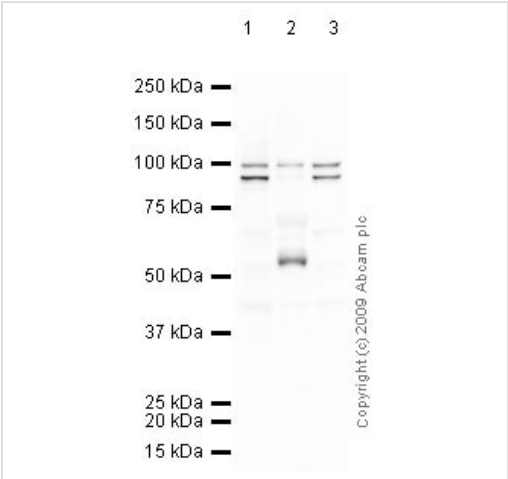
Detectable at early embryonic ages. Isoform 10 is highly expressed in developing spinal motor neurons and in developing cranial nerve nuclei. Expression is maintained only in both adult motor neurons and dorsal root ganglion neurons. Type IV isoforms are expressed in fetal brain.

结构域

The cytoplasmic domain may be involved in the regulation of trafficking and proteolytic

	processing. Regulation of the proteolytic processing involves initial intracellular domain dimerization. ERBB receptor binding is elicited entirely by the EGF-like domain.
翻译后修饰	Proteolytic cleavage close to the plasma membrane on the external face leads to the release of the soluble growth factor form. N- and O-glycosylated. Extensive glycosylation precedes the proteolytic cleavage.
细胞定位	Secreted; Cell membrane. Does not seem to be active; Membrane. May possess an internal uncleaved signal sequence; Nucleus. May be nuclear and Secreted. Has a signal peptide.

图片



Western blot - Anti-NRG1 antibody (ab53104)

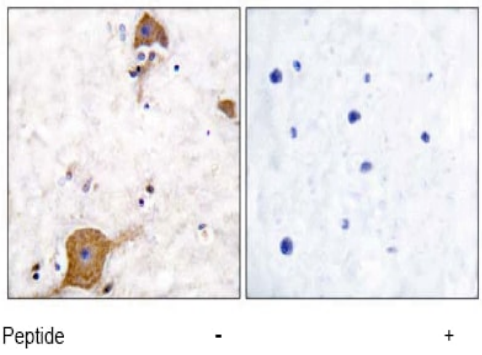
All lanes : Anti-NRG1 antibody (ab53104) at 1/500 dilution

Lane 1 : SK N SH (Human neuroblastoma) Whole Cell Lysate
Lane 2 : Human placenta tissue lysate - total protein (**ab29745**)
Lane 3 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Observed band size: 100 kDa
Additional bands at: 55 kDa (possible isoform), 90 kDa (possible isoform)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NRG1 antibody (ab53104)

ab53104 at 1/50 dilution staining NRG1 in human brain tissue by Immunohistochemistry, Paraffin embedded tissue, in the absence and presence of the immunising peptide.

Immunocytochemistry/ Immunofluorescence - Anti-NRG1 antibody (ab53104)

ICC/IF image of ab53104 stained MCF7 cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab53104, 5µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

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